

REMARKS

Favorable reconsideration is respectfully requested.

The claims are 1 to 23.

Claims 1 to 23 are rejected under 35 U.S.C. 112, first paragraph, because the specification on page 1 specifically discloses that the invention is directed to an optical disk substrate having a specific “precise transferability” which is not commensurate in scope with these claims. The rejection further points to the specification page 4 which states that this “precise transferability” refers to fine pits and productions formed on a stamper which can be transferred precisely when an optical disk substrate is produced from a thermoplastic resin molding material by injection molding. However, Applicants’ claims are said to be “tremendously broad”.

This rejection is respectfully traversed.

The present invention relates to an optical disk substrate which comprises a specific resin composition.

The features of the optical disk substrate are a function of the resin employed and need not be recited.

Under the logic of the rejection, it would be necessary to amend the claims to recite various properties of the substrate as set forth in the specification, for example, those set forth on page 1, lines 5 to 20, such as high rigidity, low water absorbability and transparency, etc.

Applicants are unaware of any requirement that properties set forth in the specification be inserted in the claims.

It appears that the rejection specifically requires the claims e.g. claim 1 to recite precise transferability of “fine pits and projections” however, this is unnecessary as discussed above.

As explained on page 1 of the specification, the optical disk substrate of the present invention is employed for CDs, MOs and DVDs. Therefore, the “precise transferability” means that the form of various pits and grooves be accurately transferred to an optical disk substrate. These “pits and grooves” refer to a form of projection formed on a stamper. These pits and grooves per se are well known with respect to an optical

disk as will be later explained in connection with references cited and these “pits and grooves” are not, per se, inventive.

See page 19, lines 4 to 15 of the present specification which points out that the precise transferability is obtained merely by subjecting the claimed resin composition to molding. Also see page 23, lines 10 et seq.

In an optical disk, “pits and grooves” means a fine convexoconcave form formed on a substrate for inputting or outputting information or records, and they themselves are well known. The following U.S. patents explain pits and grooves in an optical disk.

(i) U.S. Patent No. 4,734,904

Fig. 2 of this U.S. Patent shows recording pits 10 (see column 2, lines 53 to 56). Further, it is described in column 1, lines 43 to 46 that “In the thus manufactured reproducing-only disk, signals are recorded in tiny undulated patterns (called signal pits)”.

(ii) U.S. Patent No. 6,058,100

This U.S. Patent, in column 1, lines 55 to 59, explains a groove 56 in Fig. 13.

Further, a pit row 53 and the groove 56 are explained in column 2, lines 6 to 9.

(iii) U.S. Patent No. 4,889,757

This U. S. Patent, in column 2, paragraph at lines 54 to 66 refers to Fig. 1 and explains “grooves for tracking 6 or pits for sector signals” and “a stamper having grooves or signal pits”.

Enclosed are copies of the above three U.S. Patents.

Such known features clearly need not be recited.

Thus, the rejection under 35 U.S.C. 112, first paragraph, is untenable.

With regard to the rejection of claim 7 under 35 U.S.C. 112 as indefinite, antecedent basis has been provided for pits and grooves in claim 7.

Claim 7 merely specifies a distance between such grooves or pits in an optical disk substrate.

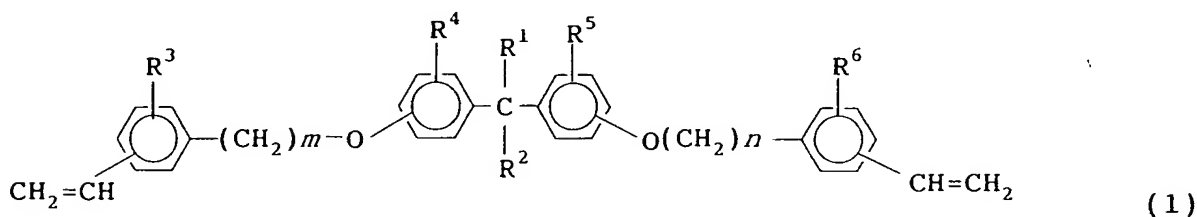
Claims 1 to 6, 9 to 15 and 17 to 23 are rejected under 35 U.S.C. 102(b) and 103(a) as being anticipated by U.S. 5,138,001, Columns 1 to 4 and 10 to 26 and Tables 4 and 5.

These rejections are respectfully traversed.

As is clearly specified in present claim 1, the present invention is an optical disk substrate formed of a resin composition comprising 100 parts by weight of a polycarbonate and 0.1 to 20 parts by weight of the compound of the formula (1). Thus, the optical disk substrate of the present invention is formed of a resin composition containing a polycarbonate as a main component.

In contrast, the reference describes nothing concerning the use of any polycarbonate resin but merely describes the use of an entirely different crosslinked resin, so that the reference is not at all relevant to the present invention. This point will be further explained below.

As described in claim 1, the reference describes "a polymerizable composition comprising (A) a vinylphenyl compound of the following formula (I) and (B) other vinyl compound copolymerizable therewith."



Further, in claim 3, the reference describes a crosslinked polymer obtained by polymerization of the polymerizable composition of claim 1.

The invention of the reference can be summarized by pointing out that it is directed to a crosslinked polymer obtained by crosslink-polymerization of the (A) vinylphenyl compound of the above formula (1) and (B) other vinyl compound and a polymerizable composition (a mixture of vinyl compounds) to be used therefor.

Therefore, the polymer obtained in the reference uses two types of vinyl compounds (A) and (B), and the vinyl compound (A) has two vinyl groups, so that the polymer in the reference is a crosslinked polymer but is not any thermoplastic polymer.

As described in Examples 9 to 19 of the reference, the disk substrate of the invention of the reference is formed by charging a monomer mixture of the vinyl compounds (A) and (B) into a mold composed of two glasses and a Teflon tube and polymerizing these compounds by UV irradiation.

Since the invention of the reference is directed in principle to a crosslinked polymerization of vinyl compounds, the thus-obtained polymer is a crosslinked polymer, so that no other polymer or compound can be mixed with the obtained polymer after the polymerization.

The reference, therefore, neither describes nor suggests anything concerning the mixing of the polymer with another polymer, particularly, with a thermoplastic polymer. The reference is even more silent concerning the mixing of the crosslinked polymer with a polycarbonate as presently recited.

The reference merely describes the use of PC (polycarbonate) as a Comparative Example in Comparative Example 9 in Table 5.

As explained above, the reference does not at all disclose or suggest the use of the resin composition of the present invention containing a polycarbonate resin as a main component, nor does it describe or suggest any use of the compound of the formula (I), no less in combination with a polycarbonate copolymer.

For the foregoing reasons, it is apparent that the rejections on prior art are untenable and should be withdrawn.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

Shintaro NISHIDA et al.

THE COMMISSIONER IS AUTHORIZED
TO CHARGE ANY DEFICIENCY IN THE
FEES FOR THIS PAPER TO DEPOSIT
ACCOUNT NO. 23-0975

By: 

Matthew M. Jacob

Registration No. 25,154

Attorney for Applicants

MJ/kes
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
December 1, 2005